

JOURNAL OF
Neurobiology

Volume Contents

Vol. 46, No. 1, January 2001

Androgen Receptors in Cranial Nerve Motor Nuclei of Male and Female Rats / 1

Wan-hua Amy Yu and Marilyn Y. McGinnis

Retinoic Acid-Induced Changes in Polysialyltransferase mRNA Expression and NCAM Polysialylation in Human Neuroblastoma Cells / 11

Ralph Seidenfaden and Herbert Hildebrandt

Contribution of Neurons to Habituation to Mechanical Stimulation in *Caenorhabditis elegans* / 29

Kei-ichiro Kitamura, Shigetoyo Amano, and Ryuji Hosono

Rapid Bidirectional Modulation of mRNA Expression and Export Accompany Long-Term Facilitation and Depression of *Aplysia* Synapses / 41

Zhong-Yi Sun, Fang Wu, and Samuel Schacher

Response Biases in Auditory Forebrain Regions of Female Songbirds Following Exposure to Sexually Relevant Variation in Male Song / 48

Timothy Q. Gentner, Stewart H. Hulse, Deborah Duffy, and Gregory F. Ball

Altered Gravitational Forces Affect the Development of the Static Vestibuloocular Reflex in Fish (*Oreochromis mossambicus*) / 59

Claudia Sebastian, Konrad Esseling, and Eberhard Horn

Cover: Cerebellar granule neurons were triple-labeled with antibodies against β -tubulin, α -mannosidase II and with Texas Red-X-Phalloidin to visualize the neuronal microtubule array (green), the Golgi apparatus (blue) and the actin cytoskeleton (red) of cells at the complex/multipolar stage of development, respectively. At this stage of differentiation (4–5 days in vitro), granule neurons possess mature morphologies consisting of both axons and dendrites. In contrast to the location of the Golgi apparatus at the base of the initial axon in cells at the unipolar stage of development, or at the base of the newly emerging secondary axon in cells at the transitional stages of development, the Golgi apparatus is no longer localized to the base of any individual neurite in cells at the complex/multipolar stage. See Szmuda and Rivas, Vol. 43, No. 4, June 15, 2000, pp. 313–328.

Vol. 46, No. 2, February 5, 2001

FAST TRACK

***Drosophila* Pax-6/eyeless is Essential for Normal Adult Brain Structure and Function / 73**

P. Callaerts, S. Leng, J. Clements, C. Benassayag, D. Cribbs, Y. Y. Kang, U. Walldorf, K.-F. Fischbach, and R. Strauss

Direct Interactions between Immunocytes and Neurons after Axotomy in *Aplysia* / 89

Maryjane Farr, De-Fen Zhu, Michael Povelones, Diana Valcich, and Richard T. Ambron

Embryonic Development of the Central Projection of Auditory Afferents (*Schistocerca gregaria*, Orthoptera, Insecta) / 97

Susanne Schöffner and Reinhard Lakes-Harlan

Expression of Glycoproteins in the Vomeronasal Organ Reveals a Novel Spatiotemporal Pattern of Sensory Neurone Maturation / 113

Heidi Jane Clarris and Brian Key

***In Vivo* Recordings of Spontaneous and Odor-Modulated Dynamics in the *Limax* Olfactory Lobe / 126**

I. R. C. Cooke and A. Gelperin

Lesions of a Telencephalic Nucleus in Male Zebra Finches: Influences on Vocal Behavior in Juveniles and Adults / 142

Elizabeth F. Foster and Sarah W. Bottjer

Cover: Kenyon cell nuclei of the adult *Drosophila* mushroom bodies immunostained with an antibody against the Pax-6 homolog EYELESS. See Callaerts et al., pages 73–88 of this issue.

Vol. 46, No. 3, February 15, 2001

Temporally and Spatially Regulated Expression of a Candidate G-Protein-Coupled Receptor during Cerebral Cortical Development / 167

Anjen Chenn, Margaret E. Levin, and Susan K. McConnell

Nicotinic Acetylcholine Receptor Subunit Proteins $\alpha 7$ and $\beta 4$ Decrease in the Superior Cervical Ganglion after Axotomy / 178

Yuefang Zhou, Evan Deneris, and Richard E. Zigmond

Effects of Serotonin Depletion on Local Interneurons in the Developing Olfactory Pathway of Lobsters / 193

Jeanne L. Benton and Barbara S. Beltz

Regulation of Neuronal Growth Cone Filopodia by Nitric Oxide Depends on Soluble Guanylyl Cyclase / 206

Stefanie Van Wagenen and Vincent Rehder

A Single Peripheral Injection of Basic Fibroblast Growth Factor (bFGF) Stimulates Granule Cell Production and Increases Cerebellar Growth in Newborn Rats / 220

Yinghong Cheng, Yong Tao, Ira B. Black, and Emanuel DiCicco-Bloom

Cover: Double-labeled confocal image of a Neurobiotin-filled dorsal giant neuron (DGN) in an embryonic lobster brain, revealing the DGN within the synapsin-labeled olfactory and olfactory globular tract neuropils.

Vol. 46, No. 4, March 2001

Voltage-Sensitive Calcium Currents and Their Role in Regulating Phrenic Motoneuron Electrical Excitability during the Perinatal Period / 231

Miguel Martin-Caraballo and John J. Greer

Characterization of the Execution Pathway of Developing Motoneurons Deprived of Trophic Support / 249

Ling Li, Ronald W. Oppenheim, and Carolanne E. Milligan

Neurotrophin Channeling of Neural Progenitor Cell Differentiation / 265

Brian O. Benoit, Todd Savarese, Marguerite Joly, Caron M. Engstrom, Lizhen Pang, Judy Reilly, Lawrence D. Recht, Alonzo H. Ross, and Peter J. Quesenberry

3',5'-Cyclic Adenosine Monophosphate Regulates Expression of Synaptotagmin in Neonatal Sympathetic Ganglia *in Vitro* / 281

Karen F. Greif

Two Classes of Visual Motion Sensitive Interneurons Differ in Direction and Velocity Dependency of *in Vivo* Calcium Dynamics / 289

Volker Dürr, Rafael Kurtz, and Martin Egelhaaf

Dendritic Calcium Accumulation Regulates Wind Sensitivity via Short-Term Depression at Cercal Sensory-to-Giant Interneuron Synapses in the Cricket / 301

Hiroto Ogawa, Yoshichika Baba, and Kotaro Oka

Author Index to Volume 46 / 317

Subject Index to Volume 46 / 319

Volume Contents / I

Cover: A neural cell from neurosphere derived colonies 7 days after epidermal growth factor was removed (depleted) and BDNF was added. This is a FITC image of a cell stained with anti-NF antibody and a FITC conjugated secondary antibody with dapi nuclear stain. See Benoit et al., pages 265–280 of this issue.